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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/550,443

04/17/2000

Gordon Pack

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1576

7590

09/22/2004

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EXAMINER

FERRIS, DERRICK W

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/550,443

Applicant(s)

PACK ET AL.

Examiner

Derrick W. Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-15 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3 and 5-15 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 17 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/18/2004 has been entered.

Response to Amendment

2. **Claims 1, 3, and 5-15** as amended are still in consideration for this application. Applicant has amended claims **1, 3, 5, 6, 7, 11, and 12**. Applicant has canceled claims 2, 4, and 16-17.

3. Examiner **withdraws** the anticipated rejection to *Varma* (and depending rejections) for Office action filed **03/15/04**. In response to applicant's arguments filed 6/18/2004, the examiner has withdrawn the rejection based on better art found in light of applicant's arguments with respect to the limitation "calculating the second bandwidth based upon how many of the plurality of lines are broken".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. **Claims 1, 3, and 5-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,898,670 A to *Hoebeke et al.* ("*Hoebeke*") in view of "ATM Technology Overview" to *Thorne*.

In making a proper obviousness rejection under MPEP 706.02(j), the examiner will address the following four steps:

- a) *the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line numbers where appropriate;*
- b) *the difference of differences in the claim(s) over the applied cited references;*
- c) *the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter; and*
- d) *an explanation why one skilled in the art at the time of the invention was made would have been motivated to make the proposed modification.*

As such to **claim 1**, for step (a) *Hoebeke* discloses detecting a change from a first bandwidth connection to a second bandwidth connection by monitoring DMAX. As various source inputs are multiplexed over a common channel, examiner notes a plurality of lines in light of applicant's specification, see e.g., column 4, lines 37-67. With respect to calculating the second bandwidth connection based on how many plurality of lines are broken, see e.g., column 6, lines 20-31. In particular, MMU monitors the output flow and is thus aware of potential changes such as broken lines since the bandwidth changes (i.e., examiner interprets broken lines as the available bandwidth (BW A) in view of applicant's specification, see e.g., applicant's specification at page 8, lines 5-15). In other words, applicant teaches monitoring the available bandwidth and not necessarily the actual number of lines, working or broken. Providing a second bandwidth via a feedback loop to a transmit rate selector is taught as part of signal OFRI. Each ISD is responsible

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for computing bandwidth transmissions. As such, each ISN has an associated queue in reference to queuing data cells.

For step (b) *Hoebeke* is silent or deficient to the further limitation queuing first data cells having fixed transmission rates and first data cells having variable transmission rates. In particular, although ABR is disclosed in the embodiment, see e.g., column 3, lines 55-60, other classes of service are used, see e.g., column 6, line 63-column 7, line 8. Thus *Hoebeke* also discloses VBR or variable transmission rates. Thus not expressly disclosed are fixed transmission rates or CBR.

Thorne teaches the further recited limitation above at e.g., Section 2.3.6 on page 1/3.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Hoebeke* by including CBR traffic or fixed transmission rates.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation fixed and variable transmission rates. In particular, the motivation for modifying the reference or to combine the reference teachings would be to offer different classes of services. In

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particular, *Thorne* cures the above-cited deficiency by providing a motivation found at e.g., 2.3.6 on page 1/3. Second, there would be a reasonable expectation of success since *Hoebeke* teaches that other classes of service are supported, see e.g., column 7, lines 1-6. Thus the references either in singular or in combination teach the above claim limitation(s).

As to **claim 3**, QoS is maintained dynamically, see e.g., column 6, lines 20-36 of *Hoebeke*.

As to **claim 5**, QoS is preserved as part of class of service, see e.g., column 7, lines 1-6 of *Hoebeke*.

As to **claims 6-7**, see similar rejection to claim 1.

As to **claim 8**, see similar rejection to claim 2.

As to **claim 9**, see similar rejection to claim 1.

As to **claim 10**, see similar rejection to claim 5.

As to **claims 11-12**, see similar rejection to claim 1. In addition, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to incorporate the hardware and software proposed by *Hoebeke* into computer instructions as part of a design decision.

As to **claim 13**, see similar rejection to claim 2.

As to **claim 14**, see similar rejection to claim 1.

As to **claim 15**, see similar rejection to claim 5.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
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DWF


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 9/17/09